

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 (Previously presented). A method of manufacturing a semiconductor device, comprising:
forming an amorphous semiconductor film over a substrate;
irradiating the amorphous semiconductor film with a first laser beam to form a first crystalline semiconductor film; and
irradiating the first crystalline semiconductor film with a second laser beam to form a second crystalline semiconductor film,
wherein the first laser beam is a third harmonic of a first YAG laser, and
wherein the second laser beam is a second harmonic of a second YAG laser.

2. (Original). A method according to claim 1, wherein the first laser beam and the second laser beam are different in wavelength from each other.

3 (Previously presented). A method of manufacturing a semiconductor device, comprising:
forming an amorphous semiconductor film over a substrate;
irradiating the amorphous semiconductor film with a first laser beam to form a first crystalline semiconductor film; and
irradiating the first crystalline semiconductor film with a second laser beam to form a second crystalline semiconductor film,
wherein the first laser beam is a YVO₄ laser, and
wherein the second laser beam is a YAG laser.

4 (Previously presented). A method of manufacturing a semiconductor device, comprising:
forming an amorphous semiconductor film over a substrate;
irradiating the amorphous semiconductor film with a first laser beam to form a first crystalline semiconductor film; and
irradiating the first crystalline semiconductor film with a second laser beam to form a second crystalline semiconductor film, wherein
the second laser beam is 370 to 650 nm in wavelength, and
wherein the first laser beam is a YVO₄ laser.

5. (Original). A method of manufacturing a semiconductor device, comprising the steps of:
forming an amorphous semiconductor film over a substrate;
irradiating the amorphous semiconductor film with a first laser beam to form a first crystalline semiconductor film; and
irradiating the first crystalline semiconductor film with a second laser beam to form a second crystalline semiconductor film, wherein
the first laser beam is 126 to 370 nm in wavelength whereas the second laser beam is 370 to 650 nm in wavelength.

6 (Previously presented). A method according to claim 1, wherein the semiconductor device is incorporated into a device selected from the group consisting of a liquid crystal display device and a light emitting device.

7 (Previously presented). A method according to claim 1, wherein the semiconductor device is incorporated into a device selected from the group consisting of a cellular phone, a video camera, a digital camera, a projector, a goggle type display, a personal computer, a DVD player, an electronic book, and a portable information terminal.

8 (Previously presented). A method according to claim 3, wherein the semiconductor device is incorporated into a device selected from the group consisting of a liquid crystal display device and a light emitting device.

9 (Previously presented). A method according to claim 3, wherein the semiconductor device is incorporated into a device selected from the group consisting of a cellular phone, a video camera, a digital camera, a projector, a goggle type display, a personal computer, a DVD player, an electronic book, and a portable information terminal.

10 (Previously presented). A method according to claim 4, wherein the semiconductor device is incorporated into a device selected from the group consisting of a liquid crystal display device and a light emitting device.

11 (Previously presented). A method according to claim 4, wherein the semiconductor device is incorporated into a device selected from the group consisting of a cellular phone, a video camera, a digital camera, a projector, a goggle type display, a personal computer, a DVD player, an electronic book, and a portable information terminal.

12 (Previously presented). A method according to claim 5, wherein the semiconductor device is incorporated into a device selected from the group consisting of a liquid crystal display device and a light emitting device.

13 (Previously presented). A method according to claim 5, wherein the semiconductor device is incorporated into a device selected from the group consisting of a cellular phone, a video camera, a digital camera, a projector, a goggle type display, a personal computer, a DVD player, an electronic book, and a portable information terminal.

14 (Previously presented). A method of manufacturing a semiconductor device, comprising:

forming an amorphous semiconductor film over a substrate;

irradiating the amorphous semiconductor film with a first laser beam to form a first crystalline semiconductor film; and

irradiating the first crystalline semiconductor film with a second laser beam to form a second crystalline semiconductor film,

wherein the first laser beam has a wavelength of 308 nm, and

wherein the second laser beam has a wavelength of 532 nm.

15 (Previously presented). A method of manufacturing a semiconductor device, comprising:

forming an amorphous semiconductor film over a substrate;

irradiating the amorphous semiconductor film with a first laser beam to form a first

crystalline semiconductor film; and

irradiating the first crystalline semiconductor film with a second laser beam to form a second crystalline semiconductor film,

wherein the first laser beam is an excimer laser beam, and

wherein the second laser beam has a wavelength of 532 nm.

16 (Previously presented). A method of manufacturing a semiconductor device, comprising:

forming an amorphous semiconductor film over a substrate;

irradiating the amorphous semiconductor film with a first laser beam to form a first crystalline semiconductor film; and

irradiating the first crystalline semiconductor film with a second laser beam to form a second crystalline semiconductor film,

wherein the first laser beam is an excimer laser beam, and

wherein the second laser beam has a wavelength of 370 to 650 nm.

17 (Previously presented). A method of manufacturing a semiconductor device, comprising:

forming an amorphous semiconductor film over a substrate;

irradiating the amorphous semiconductor film with a first laser beam to form a first crystalline semiconductor film; and

irradiating the first crystalline semiconductor film with a second laser beam to form a second crystalline semiconductor film,

wherein the first laser beam has a wavelength of 126 to 370 nm, and

wherein the second laser beam has a wavelength of 532 nm.

18 (Previously presented). A method of manufacturing a semiconductor device, comprising:

forming an amorphous semiconductor film over a substrate;

irradiating the amorphous semiconductor film with a first laser beam to form a first crystalline semiconductor film;

irradiating the first crystalline semiconductor film with a second laser beam to form a second crystalline semiconductor film;

patterning the second crystalline semiconductor film into a crystalline semiconductor island;

and

forming a source region and a drain region in the crystalline semiconductor island by introducing an impurity thereinto with a channel region between the source region and the drain region,

wherein the first laser beam has a wavelength of 308 nm, and

wherein the second laser beam has a wavelength of 532 nm.

19 (Previously presented). A method of manufacturing a semiconductor device, comprising:

forming an amorphous semiconductor film over a substrate;

irradiating the amorphous semiconductor film with a first laser beam to form a first crystalline semiconductor film;

irradiating the first crystalline semiconductor film with a second laser beam to form a second crystalline semiconductor film;

patterning the second crystalline semiconductor film into a crystalline semiconductor island;
and

forming a source region and a drain region in the crystalline semiconductor island by introducing an impurity thereinto with a channel region between the source region and the drain region,

wherein the first laser beam is an excimer laser beam, and

wherein the second laser beam has a wavelength of 532 nm.

20 (Previously presented). A method of manufacturing a semiconductor device, comprising:

forming an amorphous semiconductor film over a substrate;

irradiating the amorphous semiconductor film with a first laser beam to form a first crystalline semiconductor film;

irradiating the first crystalline semiconductor film with a second laser beam to form a second crystalline semiconductor film,

patterning the second crystalline semiconductor film into a crystalline semiconductor island;
and

forming a source region and a drain region in the crystalline semiconductor island by introducing an impurity thereinto with a channel region between the source region and the drain region,

wherein the first laser beam is an excimer laser beam, and

wherein the second laser beam has a wavelength of 370 to 650 nm.

21 (Previously presented). A method of manufacturing a semiconductor device, comprising:

forming an amorphous semiconductor film over a substrate;

irradiating the amorphous semiconductor film with a first laser beam to form a first crystalline semiconductor film;

irradiating the first crystalline semiconductor film with a second laser beam to form a second crystalline semiconductor film,

patterning the second crystalline semiconductor film into a crystalline semiconductor island; and

forming a source region and a drain region in the crystalline semiconductor island by introducing an impurity thereinto with a channel region between the source region and the drain region,

wherein the first laser beam has a wavelength of 126 to 370 nm, and

wherein the second laser beam has a wavelength of 532 nm.

22 (Previously presented). A method of manufacturing a semiconductor device, comprising:

forming an amorphous semiconductor film over a substrate;

irradiating the amorphous semiconductor film with a first laser beam to form a first crystalline semiconductor film;

irradiating the first crystalline semiconductor film with a second laser beam to form a second crystalline semiconductor film,

patterning the second crystalline semiconductor film into a crystalline semiconductor island;
and

forming a source region and a drain region in the crystalline semiconductor island by introducing an impurity thereinto with a channel region between the source region and the drain region,

wherein the first laser beam is 126 to 370 nm in wavelength, and

wherein the second laser beam is 370 to 650 nm in wavelength.

23 (Previously presented). A method according to claim 14 wherein the semiconductor device is incorporated into a device selected from the group consisting of a cellular phone, a video camera, a digital camera, a projector, a goggle type display, a personal computer, a DVD player, an electronic book, and a portable information terminal.

24 (Previously presented). A method according to claim 14 wherein the semiconductor device is incorporated into a device selected from the group consisting of a liquid crystal display and a light emitting device.

25 (Previously presented). A method according to claim 15 wherein the semiconductor device is incorporated into a device selected from the group consisting of a cellular phone, a video camera, a digital camera, a projector, a goggle type display, a personal computer, a DVD player, an electronic book, and a portable information terminal.

26 (Previously presented). A method according to claim 15 wherein the semiconductor device is incorporated into a device selected from the group consisting of a liquid crystal display and a light emitting device.

27 (Previously presented). A method according to claim 16 wherein the semiconductor device is incorporated into a device selected from the group consisting of a cellular phone, a video camera, a digital camera, a projector, a goggle type display, a personal computer, a DVD player, an electronic book, and a portable information terminal.

28 (Previously presented). A method according to claim 16 wherein the semiconductor device is incorporated into a device selected from the group consisting of a liquid crystal display and a light emitting device.

29 (Previously presented). A method according to claim 17 wherein the semiconductor device is incorporated into a device selected from the group consisting of a cellular phone, a video camera, a digital camera, a projector, a goggle type display, a personal computer, a DVD player, an electronic book, and a portable information terminal.

30 (Previously presented). A method according to claim 17 wherein the semiconductor device is incorporated into a device selected from the group consisting of a liquid crystal display and a light emitting device.

31 (Previously presented). A method according to claim 18 wherein the semiconductor device is incorporated into a device selected from the group consisting of a cellular phone, a video camera, a digital camera, a projector, a goggle type display, a personal computer, a DVD player, an electronic book, and a portable information terminal.

32 (Previously presented). A method according to claim 18 wherein the semiconductor device is incorporated into a device selected from the group consisting of a liquid crystal display and a light emitting device.

33 (Previously presented). A method according to claim 19 wherein the semiconductor device is incorporated into a device selected from the group consisting of a cellular phone, a video camera, a digital camera, a projector, a goggle type display, a personal computer, a DVD player, an electronic book, and a portable information terminal.

34 (Previously presented). A method according to claim 19 wherein the semiconductor device is incorporated into a device selected from the group consisting of a liquid crystal display and a light emitting device.

35 (Previously presented). A method according to claim 20 wherein the semiconductor device is incorporated into a device selected from the group consisting of a cellular phone, a video camera, a digital camera, a projector, a goggle type display, a personal computer, a DVD player, an electronic book, and a portable information terminal.

36 (Previously presented). A method according to claim 20 wherein the semiconductor device is incorporated into a device selected from the group consisting of a liquid crystal display and a light emitting device.

37 (Previously presented). A method according to claim 21 wherein the semiconductor device is incorporated into a device selected from the group consisting of a cellular phone, a video camera, a digital camera, a projector, a goggle type display, a personal computer, a DVD player, an electronic book, and a portable information terminal.

38 (Previously presented). A method according to claim 21 wherein the semiconductor device is incorporated into a device selected from the group consisting of a liquid crystal display and a light emitting device.

39 (Previously presented). A method according to claim 22 wherein the semiconductor device is incorporated into a device selected from the group consisting of a cellular phone, a video camera, a digital camera, a projector, a goggle type display, a personal computer, a DVD player, an electronic book, and a portable information terminal.

40 (Previously presented). A method according to claim 22 wherein the semiconductor device is incorporated into a device selected from the group consisting of a liquid crystal display and a light emitting device.

41 (New). A method of manufacturing a semiconductor device, comprising:

forming an amorphous semiconductor film comprising silicon over a substrate;
irradiating the amorphous semiconductor film with a first laser beam to form a first
crystalline semiconductor film; and
irradiating the first crystalline semiconductor film with a second laser beam to form a
second crystalline semiconductor film;
wherein the first laser beam has a wavelength of 308 nm, and
wherein the second laser beam has a wavelength of 532 nm.